



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/066,290	01/31/2002	Peter Rex Gawthrop	10541/193	2033

29074 7590 06/20/2003

BRINKS HOFER GILSON & LIONE  
P.O. BOX 10395  
CHICAGO, IL 60611

EXAMINER
----------

ALI, MOHAMMAD M

ART UNIT	PAPER NUMBER
----------	--------------

3744

DATE MAILED: 06/20/2003

60

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/066,290

Applicant(s)

GAWTHROP ET AL. 

Examiner

Mohammad M Ali

Art Unit

3744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_ 6) ☐ Other: \_\_\_\_

***Claim Rejections - 35 USC § 112***

Claim 28 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase, "said top manifold" in claim 28 makes the claim indefinite.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-4, 6-8, 19, 21-23 are rejected under 35 U.S.C. 102(a) as being anticipated by Gawthrop et al. (Pub. No.: US 2002/0084063 A1). Gawthrop et al. disclose .a condenser comprising a top manifold 54 defining a first volume of space, a bottom manifold 64 positioned below the top manifold 54 and defining a second volume of space that has a magnitude different from the magnitude of first volume of space, a core positioned between the top manifold 54 and the bottom manifold 64, the core comprising first set of condenser tubes (at the left side of divider 56) that are in fluid communication with the top manifold 54 and the bottom manifold 64, a second set of condenser tubes (at the right side of divider 56) that are in fluid communication between the top manifold 54 and the bottom manifold 64, the end tubes 62 and 72 also contains refrigerant. See Fig. 1 and 4.

2. Claims 5, 9--18, 20, 24--33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gawthrop et al. in view of Poles et al. (6,200,542B1). Gawthrop et al. disclose the invention substantially as claimed as stated above. However, Gawthrop et al. do not disclose a radiator and an engine. Poles et al. teach the use of a radiator 16 and an engine 28 in an automotive air conditioning system for the purpose of having a cooling system of desired manner. Poles et al. also teaches the use of a cross-flow condenser 14 and corrugated fins 50 See Fig. 1, 3 and 4. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the condenser of Gawthrop et al. in view of Poles et al. such that a radiator along with automotive engine , cross-flow condenser with corrugated fin could be provided in order to have a desired cooling system in the vehicle.

### ***Response to Arguments***

Applicant's arguments filed 06/02/03 have been fully considered but they are not persuasive. The Applicant argued, "Since Beatenbough does not disclose or suggest inserting a refrigerant in Paquet's end tubes 11-1 and 11-2, the rejection is overcome and should be withdrawn." The Examiner disagrees. In view of the amendment the Examiner searched out a new document, which creates a new ground of rejection. Therefore, Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection. Regarding claim 3 and 4 for super cooling tubes, Gawthrop et al. disclose in the brief summary of the invention in Para [0007] second pass tubes allows for the maximum subcooling heat transfer. This indicates the supercooling aspect of the tubes. Regarding claim 8, there is a depression


Art Unit: 3744

in the new document, regarding claims 19-24, liquid phase of refrigerant will be always present in the bottom manifold ( as seen in Fig. 4) as well as in the heat exchanger tubes as the tubes are vertically connected to the manifold. Therefore, the rejection is proper.

Any inquiry concerning this communication or earlier from the examiner should be directed to Mohammad M. Ali, whose telephone number is (703) 308-5032. The examiner can be reached from 6:10am to 5:50pm from Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Denise Esquivel, can be reached at (703) 308-2597. The fax number for the organization where this application or proceeding is assigned is 703-308-7764 for regular communications and after-final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.

  
William E. Tapolcai  
Primary Examiner  
Art Unit 344



Ma

June 18, 2003